

USSN 10/676,414

REMARKS

Claims 1-21 are pending in this application.

Claims 6 and 15 are objected to.

Claims 1-5, 7-14 and 16-21 are rejected.

The office action dated June 26, 2004 indicates that claims 1-4, 7-12, 14 and 16-21 are rejected under 35 USC §102(e) as being anticipated by Daughton et al. U.S. Patent No. 6,538,921, and that claims 5 and 13 are rejected under 35 USC §103 as being unpatentable over Daughton et al. in view of Deak U.S. Patent No. 6,570,783.

Claim 1 has been amended to recite the subject matter of claim 6, which is considered allowable. Claims 6-7 have been cancelled, and claim 8 has been amended to depend from claim 1. Since the subject matter of amended claim 1 is considered allowable, amended claim 1 and its dependent claims 2-5, 8 and 11- should be allowed.

Claim 9 has been rewritten in independent form to recite a method of fabricating a magnetic memory element. The method comprises forming a ferromagnetic data layer with a non-symmetric arrangement of controlled nucleation sites.

Daughton et al do not teach or suggest a data layer with a non- symmetric arrangement of controlled nucleation sites. As stated in the application, an advantage of non-symmetric arrangements of nucleation sites is that they "may be used to compensate for an offset in switching fields. For example, one site might nucleate at a higher switching field for one direction, and a lower switching for the other direction. Thus the offset is balanced out due to magnetostatics." Therefore, amended claim 9 should be allowable over Daughton et al. Claim 10, which has been amended to depend from claim 9, should also be allowable over Daughton et al.

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Claim 12 has been amended to recite a method of fabricating a data storage device. The method comprises forming an array of square or rectangular ferromagnetic data layers, each layer having first and second neighboring regions. The first regions have a lower switching threshold than the second regions and are substantially smaller than the second regions. The first regions at the same location on the data layers across the array.

Daughton et al. don't teach or suggest such square or rectangular data layers. Therefore, claim 12 and its dependent claims 13-21 should be allowed over Daughton et al.

Objections to the specification have been noted. The detailed description, has been amended to correct the misspelling of "divot." The examiner is thanked for identifying the error.

The office action objects to the abstract for the misspelling of "divot." However, the abstract does not contain the word "divot," so no amendment to the abstract was made. The office action also indicates that the abstract is too short. However, the MPEP does not set a minimum word count. MPEP 608.01(b) states "The abstract should be in narrative form and generally limited to a single paragraph within the range of 50 to 150 words. The word "should" is a suggestion, not a requirement.

The examiner is respectfully requested to issue a notice of allowability. If any issues remain, the examiner is invited to contact the undersigned to discuss those remaining issues.